

## CLAIMS

1. A communication system in which a plurality of frequency signals are communicated between a first apparatus and a second apparatus via a common cable, wherein:

the first apparatus is comprised of: transmission-sided reference frequency signal level detecting means for detecting a level of a frequency signal which constitutes a reference among the frequency signals which are transmitted via the cable with respect to the second apparatus;

the second apparatus is comprised of: reception-sided reference frequency signal level detecting means for detecting a level of a frequency signal which constitutes a reference and is received from the first apparatus via the cable; and,

said communication system is further comprised of: out-of-reference frequency signal level control means for controlling a level of a frequency signal other than the frequency signal which constitutes the reference and is communicated between the first apparatus and the second apparatus via the cable based upon a compared result between the result detected by said transmission-sided reference frequency signal level detecting means of the first apparatus, and the result detected by said reception-sided reference frequency signal level detecting means of the second apparatus.

2. A communication system as claimed in claim 1 wherein: the transmission-sided reference frequency signal level

detecting means of said first apparatus detects an averaged value of the levels of the frequency signal which constitutes the reference among the frequency signals transmitted via the cable with respect to said second apparatus;

the reception-sided reference signal level detecting means of said second apparatus detects an averaged value of the levels of the frequency signal which constitutes the reference and is received from said first apparatus via the cable;

the second apparatus is further comprised of: reception-sided reference frequency signal level detected result transmitting means for transmitting the detected result by said reception-sided reference frequency signal level detecting means with respect to said first apparatus;

the first apparatus is further comprised of: reception-sided reference frequency signal level detected result receiving means for receiving the detected result by the reception-sided reference frequency signal level detecting means of said second apparatus, which is transmitted by the reception-sided reference frequency signal level detected result transmitting means of said second apparatus;

said out-of-reference frequency signal level control means is provided in said first apparatus;

said out-of-reference frequency signal level control means includes reference frequency signal level control means

for controlling a level of a frequency signal which constitutes the reference and is transmitted via the cable to said second apparatus based upon a compared result between the detected result by said transmission-sided reference frequency signal level detecting means and the detected result which is received by the reception-sided reference frequency signal level detected result receiving means, and also includes reference frequency signal level controlled result out-of-reference frequency signal level control mode corresponding item storage means for storing thereinto a corresponding item between the controlled result by said reference frequency signal level control means and a mode for controlling the level of the frequency signal other than the frequency signal which constitutes the reference and is communicated between said first apparatus and said second apparatus via the cable; and

said out-of-reference frequency signal level control means controls the level of the frequency signal other than the frequency signal which constitutes the reference and is communicated between said first apparatus and said second apparatus via the cable based upon the storage content of said reference frequency signal level controlled result out-of-reference frequency signal level control mode corresponding item storage means in such a control mode corresponding to the controlled result by said reference frequency signal level control means.

3. A communication system as claimed in claim 1, or claim 2 wherein:

said communication system corresponds to a wireless base station system;

said first apparatus corresponds to an indoor unit;

said second apparatus corresponds to an outdoor unit;

said frequency signal which constitutes the reference corresponds to a signal of a transmission system; and

a plurality of frequency signals are multiplexed and the multiplexed signal is communicated between the first apparatus and the second apparatus via the cable.